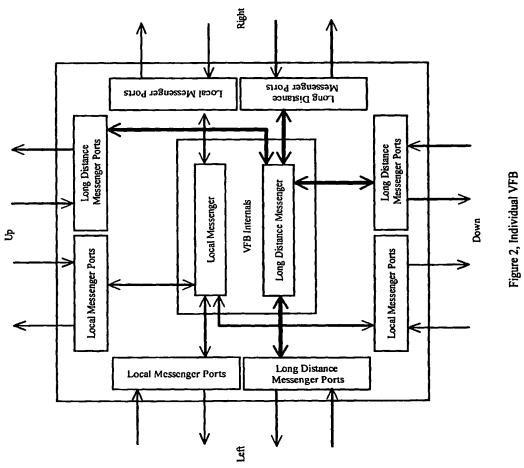
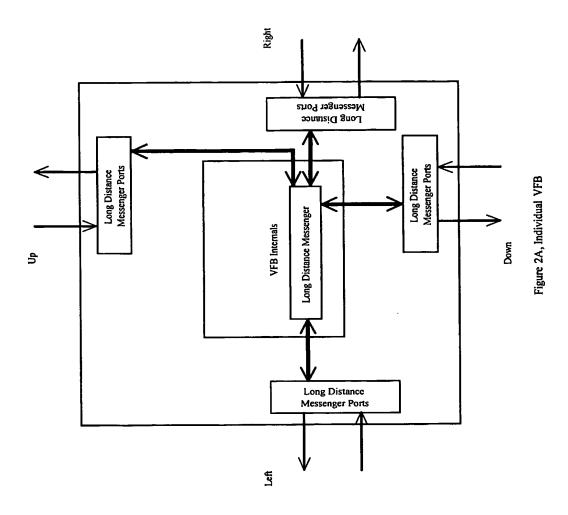


Figure 1, Messenger Interconnected Processor Array





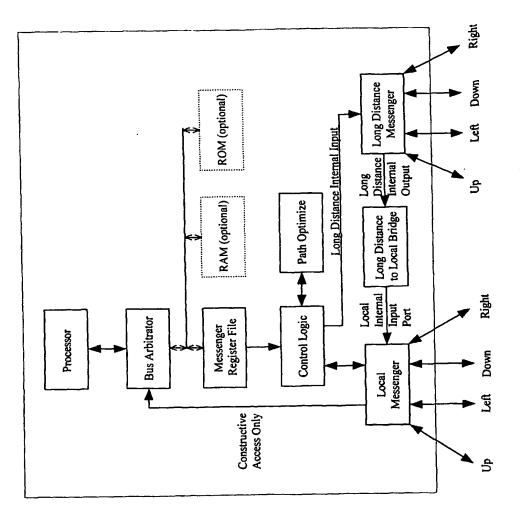


Figure 3, VFB Internals

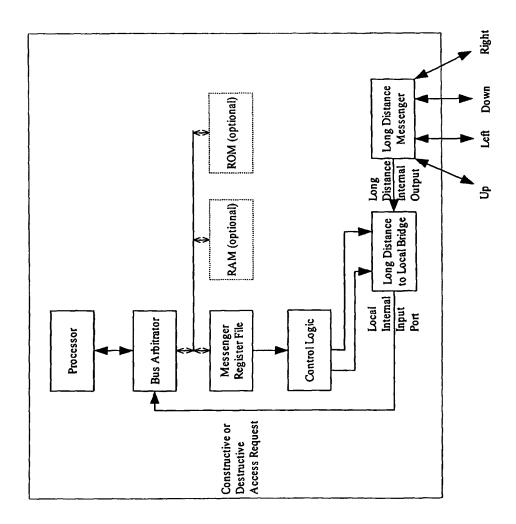
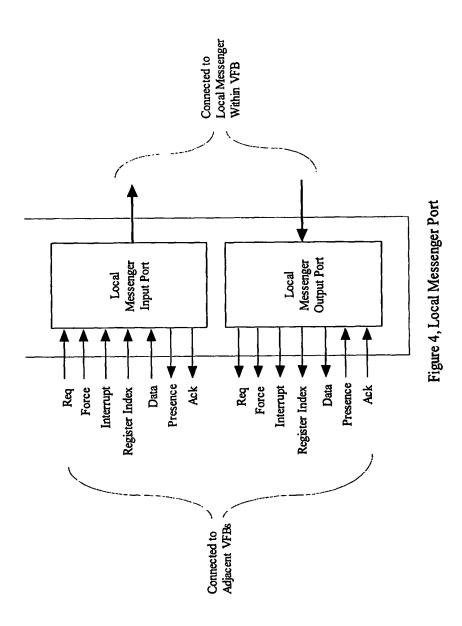


Figure 3A, VFB Internals



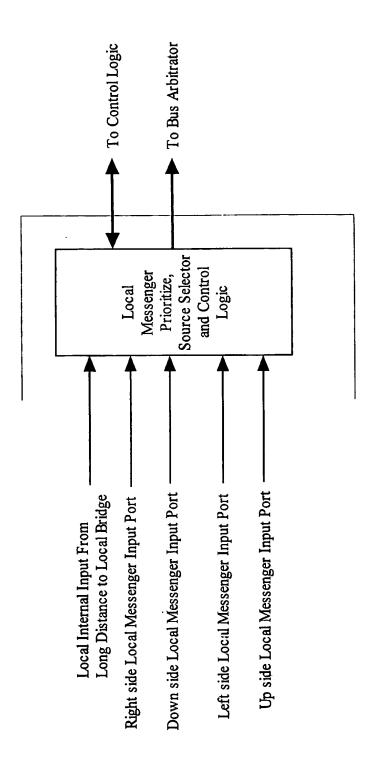


Figure 5, Local Messenger

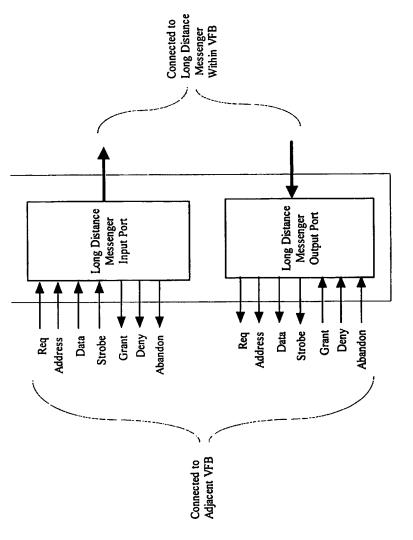


Figure 6, Long Distance Messenger Port

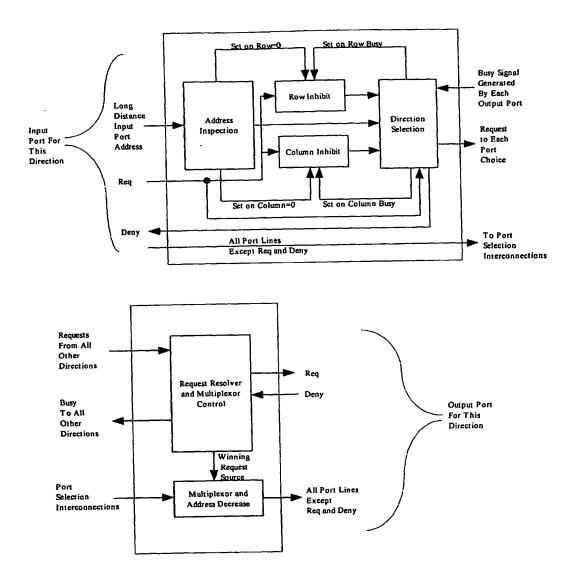


Figure 7, Long Distance Messenger Port Control Logic

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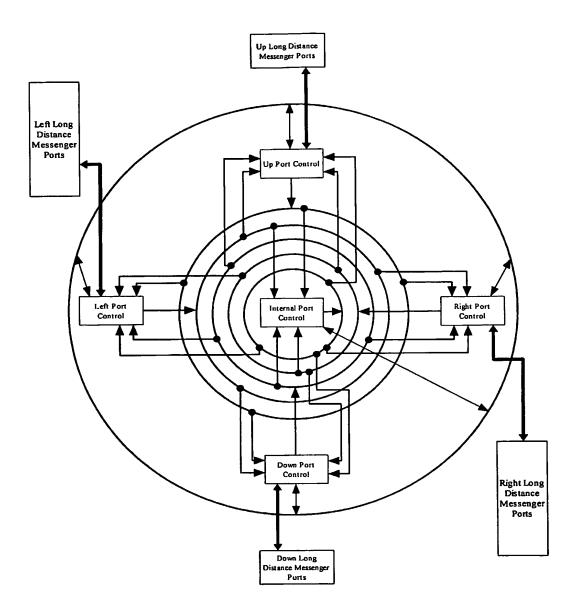


Figure 8, Long Distance Messenger

PCT/US2004/037761

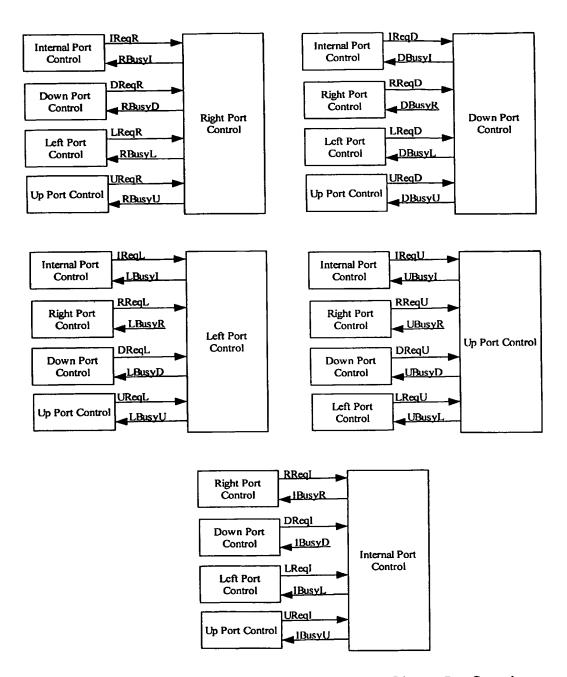


Figure 9, Request and Busy Information Shared Among Long Distance Port Controls

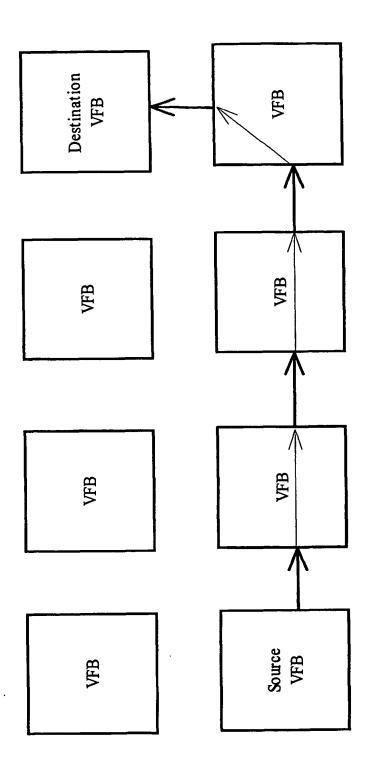


Figure 10, A Long Distance Message Connection, No Path Contention

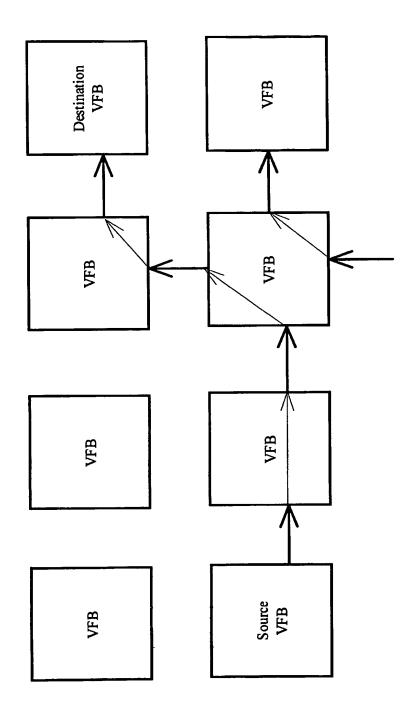


Figure 11, A Long Distance Message Connection, Path Contention Without Deny

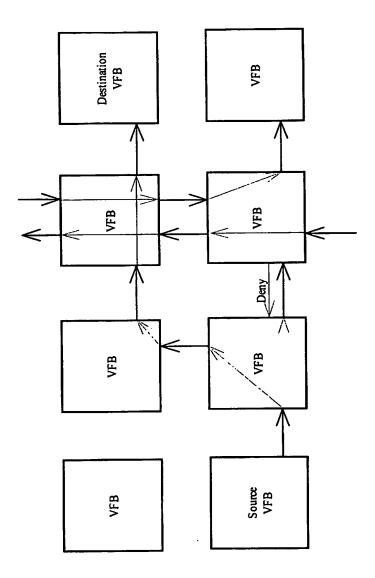
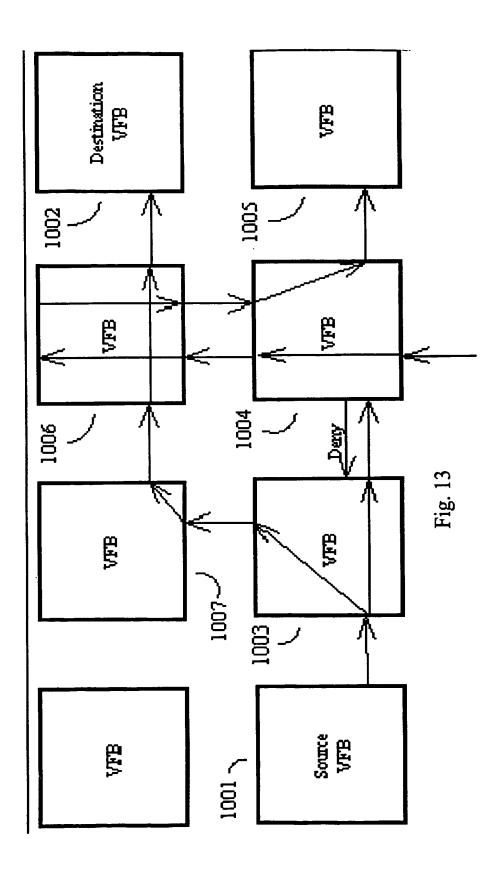


Figure 12, A Long Distance Message Connection, Path Contention With Deny



h SEND Assented? Specialist Dame Transmission: Dame has an annual contract Con-deposit Specialist Biled Canemission: No Decrement Delay Zool Retry Delay Assert Request MSG case LD Bus Yes No No Assess Yes Assert Strobe and Place Data on LD No Yes. No Is Grant Yes

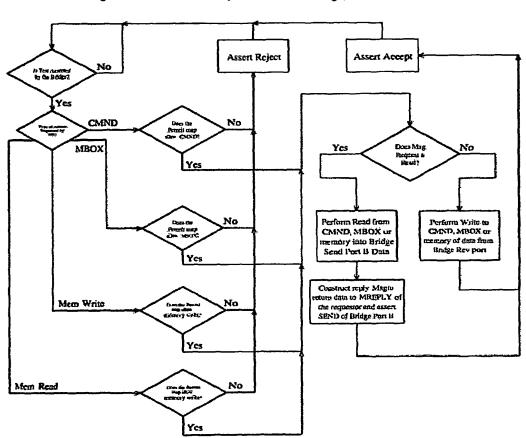
Fig. 14 Bridge Send Operation (Single Port, Optimistic Send)

b SEND Asserted3 Specessial Franciscon: Densen Pailed Teansmission: Densurthing on tools, for they later, tools are being com-No Decrement is Sory Delay Zeril Retry Delay Assert Rog and MSG cano LD Bus Yes No No Ca Cirent Yes Assert Strobe and Place Dam on LD li Grant Yes

Fig.15 Bridge Send Operation (Single Port, Pessimistic Send)

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Fig. 16 Permissions Test (Dual Send Port Bridge)



No Yes. No ित्र स्टाट्स विकास्त्रक H REQ mseried? Yes Leish MSG and esset Grant No lis Strübe Liverage A Yes Latch Data and assert Test Reject. Whee was the Assert Abandon secule of Toxi? Accept Parform memory cycle,dearsent Grant

Fig. 17 Bridge Receive (Optimistic)

No h REQ massi No Yes Is req and Revel nor asserioi? Yes Larch MSO and assert Test Reject 'Ahui wus inc Assert Abandon क्रार्क्षा हो दिस्सी Accept Assert Grant No حَرَاجِمًا \$ فِيْ Access? Yes Latte Date and Deassert Grant, Ferbrin Mamory AssertRevd Cycle

Fig. 18 Bridge Receive (Pessimistic)